

REMARKS

This Amendment is submitted in response to the Official Letter dated January 5, 2004. Claims 15, 19, 20, 28 and 29 have been amended. Claims 1 through 10 and 21 through 25 have been withdrawn from examination. The application now includes claims 1 through 29, with claims 1, 11 and 20 being independent claims. Favorable reconsideration of the application, as amended, is respectfully requested.

In the Official Letter, the Examiner objected to claim 29 as being indefinite because the intermediate layer of aluminum oxide recited in the claim lacks an antecedent basis. Applicants have deleted the portion of the claim that lacks an antecedent basis and respectfully request that the Examiner withdraw his objection to the claim.

The Examiner also rejected claims 11 through 14, 16 through 20, 26, 27 and 29 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,242,100 to Mokerji in view of U.S. Patent No. 5,632,529 to Wei. The Examiner stated that the Mokerji '100 reference discloses a metallic coating comprising a polymeric or resinous first layer 20, a metallic second layer 21 which may include a chromium, and a clear coat top layer 22. The Examiner further stated that the coating may be applied to any article made of aluminum, but the use of the material to coat a wheel is not disclosed. The Examiner also stated that the Wei reference discloses protecting and improving the appearance of an aluminum wheel with a multi-layer chrome plating. The Examiner then concluded that, from the teaching of the Wei reference, it would have been obvious to apply the coating material of Mokerji '100 to a wheel in order to protect and improve the appearance of the wheel.

Applicants have carefully reviewed the Mokerji '100 reference. The Mokerji '100 reference discloses a base coat, or layer, 20 applied over a substrate 18, a chrome layer 21 applied over the base layer 20 and a top layer 22 applied over the chrome layer. Furthermore, the Mokerji reference describes the base coat in column 1, lines 51 and 52 as being:

Over the surface of the substrate 18 is deposited a polymeric or resinous layer 20.

The Mokerji reference further describes the top coat in column 3, lines 49 through 62 as:

The top coat 22 which is deposited over the chrome layer should ideally be weather resistant, impact resistant, abrasion resistant, flexible, non-yellowing and transparent. ... Polymeric or resinous coating material which exhibit good miture of all of these properties are polyurethanes, polyacrylates and polymehacrylates. Of these polyurethnes are preferred as they exhibit a particularly good blend of these properties.

From the above description, it is apparent that the Mokerji '100 reference teaches base and top layers 20 and 22 formed from the same type of compound or material, namely an organic material, and an intermediate layer 21 formed from a different type of compound or material, namely chrome, a metallic or inorganic material.

In contrast, independent claim 11 recites a first layer 46 formed from a cured organic material disposed over at least a portion of a wheel surface 45. Claim 11 also recites a second layer 47 formed from a first inorganic material disposed over the first layer and a third layer 48 formed from a second inorganic material disposed over the second layer. Therefore, independent claim 11 recites base and top layers formed from different types of compounds or materials, namely an organic material and an inorganic material, respectively. Additionally, independent claim 11 also recites that the intermediate layer is formed from the same type of compound or material as the top layer, namely an inorganic. Therefore, the layered structure recited in independent claim 11 is different in composition from the layered structure taught by the Mokerji '100 reference. Indeed, applicants believe that the Mokerji '100 reference actually teaches away from the layered structure recited in independent claim 11. Additionally, combining the teachings of the Mokerji '100 reference with the Wei reference would clearly result in a wheel having a layered structure that is different from the layered structure recited in claim 11. Accordingly, applicants believe that independent claim 11 is patentable over the art of record and respectfully request that the examiner withdraw his rejection of the claim.

Regarding claim 13, the claim recites that the second inorganic material

includes a ceramic clear coat. As stated by the Examiner in the seventh paragraph of the Office Action, the Mokerji '100 and Wei references disclose a clear coat as the third layer, but not a ceramic clear coat. Therefore nothing in the Mokerji '100 and Wei references shows or suggests a ceramic clear coat as recited in claim 13.

Additionally, claim 13 is dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claim 13 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claim 14, the claim recites that the first inorganic material includes a ceramic material. The Mokerji '100 reference teaches a chrome layer 21 for the corresponding layer of the coating disclosed in the reference. Nothing in the Mokerji '100 reference shows or suggests a ceramic material included in the layer that is immediately below the top coat. Additionally, claim 14 is dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claim 14 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claim 16, the claim recites that the organic material in the first layer includes a color. The Mokerji '100 reference teaches additives may be added to the base coat 20 in column 2, lines 49 through 51, where it is stated that:

These polymeric materials may optionally contain the conventional and well known fillers such as mica, talc and glass fibers.

While the Mokerji '100 reference does teach adding filler material to the base coat 20, the fillings described in the reference are colorless. Nothing in the Mokerji '100 reference shows or suggests adding a color to the base coat. Additionally, claim 16 is dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claim 16 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claim 17, the claim recites that the second inorganic material is the same as the first inorganic material. As described above, the Mokerji '100 reference teaches a chrome layer 21 covered by a polymeric or resinous coating 22 for the corresponding portion of the coating. Thus, because the Mokerji '100 reference

teaches different compounds or materials for these two layers, the Mokerji '100 reference actually teaches away from the structure recited in claim 17. Additionally, claim 17 is dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claim 17 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claim 19, applicants have amended the claim to recite an intermediate layer formed from an inorganic material disposed between the surface of the wheel and the first layer of cured organic material. Thus, amended claim 19 recites a coating structure that includes a total of four distinct layers. However, the Mokerji '100 reference teaches a coating structure that includes a total of only three distinct layers. Nothing in the Mokerji '100 reference shows or suggests a coating containing four layers. Additionally, claim 19 is dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claim 19 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claim 27, the claim recites that the second layer includes one of chromium, aluminum, titanium, silver and gold. The Mokerji '100 reference teaches only a chrome layer 21. Nothing in the Mokerji '100 reference shows or suggests including aluminum, titanium, silver or gold in the second layer. Additionally, claim 27 is dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claim 27 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claim 29, the claim recites that the intermediate layer disposed between said surface of the wheel and said first layer includes aluminum oxide. As described above, nothing in the Mokerji '100 reference shows or suggests a coating layer that includes aluminum oxide. Additionally, claim 29 is dependent upon intermediate claim 19 and independent base claim 11 and includes the limitations recited in those claims. Accordingly, for the reasons given above, applicants believe that claim 29 is patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claim.

Regarding claims 12, 18 and 26, the claims are dependent upon independent claim 11. Accordingly, for the reasons given above, applicants believe that claims 12,

18 and 26 are patentable over the art of record and respectfully request that the Examiner withdrawn his rejection of the claims.

Regarding independent claim 20, applicants have amended the claim to recite four layers to include a first layer formed from an inorganic material disposed over a portion of a wheel disc surface. Amended claim 20 also recites a second layer formed from a cured organic material disposed over the first layer. Amended claim 20 further recites a third layer formed from a first inorganic material disposed over the second layer and a fourth layer formed from a second inorganic material disposed over the third layer.

As described above, the Mokerji '100 reference teaches base and top layers 20 and 22 formed from the same type of compound or material, namely an organic material, and an intermediate layer 21 formed from a different type of compound or material, namely chrome, a metallic or inorganic material.

In contrast, amended independent claim 20 recites a second layer formed from a cured organic material disposed over a first layer of inorganic material. Amended claim 20 also recites a third layer formed from a first inorganic material disposed over the second layer and a fourth layer formed from a second inorganic material disposed over the third layer. Therefore, amended independent claim 20 recites second and top layers formed from different types of compounds or materials, namely an organic material and an inorganic material, respectively. Additionally, independent claim 20 also recites that the third layer is formed from the same type of compound or material as the top layer, namely an inorganic material. Furthermore, amended claim 20 recites a fourth layer formed from an inorganic material that is between the cured organic layer and the surface of the substrate. Therefore, the layered structure recited in amended independent claim 20 is different in both composition and the number of layers from the layered structure taught by the Mokerji '100 reference. Indeed, applicants believe that the Mokerji '100 reference actually teaches away from the layered structure recited in amended independent claim 20. Additionally, combining the teachings of the Mokerji '100 reference with the Wei reference would clearly result in a wheel having a layered structure that is different from the layered structure recited in amended claim 20. Accordingly, applicants believe that amended independent claim 20 is patentable over the art of record and respectfully request that the examiner

withdraw his rejection of the claim.

The Examiner further rejected claims 15 and 28 under 35 U.S.C. §103(a) as being unpatentable over the Mokerji reference in view of the Wei reference as applied to claims 14 and 27 above and further in view of a ZoopSeal™ FAQ publication. The Examiner stated that the material in the Mokerji '100 and Wei references disclose a clear coat as the third layer, but not a ceramic clear coat. The Examiner further stated that the ZoopSeal™ reference teaches a clear ceramic sealer that is usable to coat aluminum wheels. The Examiner then concluded that it would have been obvious for the top coat clear coat of the material on the wheel of the Mokerji '100 reference in view of the Wei reference to comprise a ceramic and a clear coat as taught by the ZoopSeal™ reference in order to seal the wheel.

Applicants have amended claims 15 and 28 to recite that the third layer of the coating includes a single layer of a ceramic and a clear coat. Applicants have downloaded the instructions for applying ZoopSeal™, a copy of which is attached, from the internet. The instructions list three discrete steps for the application process. In the first step, the surface is cleaned thoroughly with ZoopSeal™ cleaner. Then, in a second step, pre-mixed ZoopSealer is applied to the surface and allowed to dry. Finally, as a third step, Zoops Final Seal is applied over the ZoopSealer and polished. The instructions state that several applications of Zoops Final Seal may be needed to produce the desired appearance. The instructions also list the following products as being included in the ZoopSeal™ kit:

Zoops Cleaner Concentrate  
ZoopSeal Part A  
ZoopSeal Part B  
Final Sealer

The instructions state that ZoopSeal Part A and ZoopSeal Part B are mixed to form the ZoopSealer applied in the second step. Additionally, the instructions state, in the questions and answers portion, that Zoopseal is a hybrid ceramic sealer, not a polish or wax. From step three of the application instructions, it is apparent that the Final Sealer is a polish.

Based upon the above information contained in the attached instructions, applicants believe that the ZoopSeal™ treatment actually forms two layers upon the top of a surface, a first layer of ZoopSeal that is covered by a second layer of Final Sealer. Nothing in the instructions indicates forming a single layer of a ceramic and a clear coat, as recited in amended claims 15 and 28. Thus, applicants believe that the ZoopSeal™ treatment produces a two layer coating structure that is different from the single layer coating structure recited in the amended claims. Indeed, applicants believe that the ZoopSeal™ reference actually teaches away from the structure recited in amended claims 15 and 28. Accordingly, applicants believe that amended claims 15 and 28 are patentable over the art of record and respectfully request that the Examiner withdraw his rejection of the claims.

In view of the amendments and above remarks, it is believed that the application is in condition for allowance.